

REMARKS

35 U.S.C. § 103 Rejections

The Examiner has rejected claims 1-12, 14, 15 and 20-22 under 35 U.S.C.

§ 103(a) as being unpatentable over U.S. Patent No. 6,335,536 issued to Goeckner et al. ("Goeckner") in view of U.S. Patent No. 6,087,229 issued to Aronowitz et al. ("Aronowitz").

The Examiner has rejected claims 13, and 16-19 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,335,536 issued to Goeckner et al. ("Goeckner") in view of U.S. Patent No. 6,087,229 issued to Aronowitz et al. ("Aronowitz"), and further in view of U.S. Patent No. 6,432,780 issued to Chen.

Applicant submits that these claims are patentable in view of Goeckner, Aronowitz and Chen.

The Goeckner patent has been assigned to Varian Semiconductor Associates, hereinafter "Varian". The Goeckner patent discloses a tool that is provided by Varian, hereinafter "the Varian tool".

Varian is an ion implantation company and the Varian tool is a gate electrode plasma tool which is an alternative to an ion plantation tool used for implanting conductivity-altering impurities into semiconductor wafers. The Varian tool is typically used to implant ions to form source and drain regions of transistors. Applicant uses the Varian tool, which has been modified to provide an order of magnitude less power. The application is also different in that Applicant's tool is used for implanting ions into a gate dielectric layer of a transistor, as claimed.

According to the inventor, Jack Hwang, the Varian field of ion implantation is worlds apart from the present application of gate dielectric formation. Mr. Hwang also believes that the people of Varian are skilled in the field of ion implantation, but are generally much less skilled in the field of gate dielectric formation. Mr. Hwang has a background in ion implantation and was then transferred within his company to a group that specializes in the formation of gate dielectric layers. Mr. Hwang believes that the only reason why the Varian tool found application in the formation of gate dielectric layers is because he was transferred, and was able to apply the knowledge gained in this prior ion implantation field to the formation of gate dielectric layers.

Mr. Hwang states that he approached Varian and told Varian about the possible new application for the Varian tool by modifying the tool. Mr. Hwang states that the people of Varian were quite surprised to learn that the energy levels of their machine can be reduced by one order of magnitude and still find a new application.

As such, Mr. Hwang believes that a person, such as employed by Varian, having skill in the art and having knowledge of the prior art, would not have been able to modify the prior art to render the present invention. As such, Mr. Hwang believes that the invention as claimed is patentable over the Varian tool.

Applicant, accordingly, respectfully requests a withdrawal of the rejections in view of Goeckner, as combined with the other references, and an allowance of the subject patent application.


If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Stephen M. De Klerk at (408) 720-8300.

Please charge any shortages and credit any overages to Deposit Account No. 02-2666. Any necessary extension of time for response not already requested is hereby requested. Please charge any corresponding fee to Deposit Account No. 02-2666.

Respectfully submitted,

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